COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Southwest Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Strongwell Corporation - Highlands Division
Abingdon, Washington County, Virginia
Permit No. SWRO11207

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Strongwell Corporation has applied for renewal of the Title V Operating Permit for its Highlands Division facility in Washington County, Virginia. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact:_____ Date: August 17, 2010
Bruce Mullins
(276) 676-4825

Air Permit Manager:_____ Date: August 17, 2010
Rob Feagins

Regional Director:_____ Date: August 17, 2010
Dallas R. Sizemore

FACILITY INFORMATION

Permittee
Strongwell Corporation
P. O. Box 580
Bristol, Virginia 24203-0580

Facility
Strongwell Corporation - Highlands Division
26770 Newbanks Road
Abingdon, Virginia 24210

County-Plant ID No. 51-191-00165

SOURCE DESCRIPTION

SIC Code: 3089 - Manufacture of plastic products, not elsewhere classified

Strongwell Corporation manufactures fiberglass reinforced plastics using a pultrusion process at their Highlands Division facility. The pultrusion process involves drawing reinforced fibers through a liquid styrene or phenolic resin mixture. The saturated fibers are then pulled through forming guides and into a heated die. The resin chemically reacts in the die creating a solid, hard finished part as the material exits. The profile produced is then cut to length. A urethane coating may be applied by hand to pultruded parts depending on customer specifications. Emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAP) result from the coating of pultruded parts and evaporation of monomers during the pultrusion process. Emissions of particulate matter (PM) result from cutting the profile to length.

In 2008, the previously permitted casting operation and associated equipment including aggregate storage silos, resin blending tanks and casting molds were removed from the facility, and three pultrusion machines, a clay storage silo and pneumatic conveying system were added.

The facility is a Title V major source of HAPs (styrene and phenol) and VOC. The facility is located in an attainment area for all pollutants, and is a Prevention of Significant Deterioration (PSD) minor source. The facility is currently permitted under a minor New Source Review (NSR) permit issued on March 24, 2010, and a Title V operating permit with an expiration date of June 22, 2010.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was completed on August 11, 2009. In addition, all reports and other data required by permit conditions or regulations, which were submitted to DEQ, were evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Pultrusion Operations							
PM-1 through PM-5	DC-1	Strongwell, 4-cavity model; produces fiber reinforced plastic products, 5 pultrusion machines	300 lb/hr, each	Farr, size 20D cartridge dust collector	DC-WC-1	PM	March 24, 2010
PM-6 through PM-10	DC-1 and DC-2	Strongwell, single/dual cavity model; produces fiber reinforced plastic products, 5 pultrusion machines	150 lb/hr, each	Farr, size 20D cartridge dust collectors	DC-WC-1 and DC-WC-2	PM	March 24, 2010
CBS-1	DC-3	Cut back saw - Original Saw Company radial arm saw	455 lb/hr	Ten Kay, size 20D cartridge dust collector	DC-WC-3	PM	-----
Clay and Resin Mixing and Storage Equipment							
MR-1	DC-4	Resin mixing room with various Strongwell mixers	6 tons/hr	Farr, size 20D cartridge dust collector	DC-WC-4	PM	-----
CAS-1	VS-CAS-1	Clay aggregate storage silo	3,000 cubic feet	Modu-Kleen bin vent filter series 669	AS-1	PM	March 24, 2010

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Clay and Resin Mixing and Storage Equipment							
DA-1	VS-DA-1	Dynamic Air pneumatic conveying system	6 tons/hr	Modu-Kleen bin vent filter series 669	DA-1	PM	March 24, 2010
T-WC-1 through T-WC-4	-----	Bulk resin storage, 4 tanks	6,768 gallon capacity, each	-----	-----	-----	March 24, 2010
Manual Surface Coating Operation							
PT-1	-----	Hand application of surface coatings	0.568 gallons/hr	-----	-----	-----	March 24, 2010

EMISSIONS INVENTORY

A copy of the 2009 Emission Statement is attached. Emissions are summarized in the following tables:

2009 Actual Emissions

	2009 Criteria Pollutant Emission in Tons/Year				
Emission Unit	VOC	CO	SO_2	PM_{10}	NO_x
PM-1 through PM-10	9.15	---	---	---	---
SH-1 through SH-33, HC-1 through HC-3, and AN-1 and AN-2	0.01	0.15	0.001	0.01	0.174
PM-1 through PM-10 (sawing), and CBS-1	---	---	---	0.021	---
MR-1, CAS-1, and DA-1	---	---	---	0.016	---
PT-1	3.86	---	---	---	---
Total	13.02	0.15	0.001	0.05	0.17

2009 Facility Hazardous Air Pollutant Emissions

Pollutant	**2009 Hazardous Air Pollutant Emissions**
Styrene	5.25 tons/yr

EMISSION UNIT APPLICABLE REQUIREMENTS - Pultrusion Operations: PM-1 through PM-10, and CBS-1

Limitations

The following requirements are from the minor NSR permit issued on March 24, 2010:

> Condition 4: Particulate emissions from the pultrusion machines shall be controlled by dust collectors using fabric or paper filters. The dust collectors shall be provided with adequate access for inspection.
>
> Condition 9: The consumption of styrene resin mix shall no exceed 7,500 tons/yr, calculated monthly as the sum of each consecutive 12-month period.

Condition 10: The consumption of phenolic resin mix shall not exceed 600 tons/yr, calculated monthly as the sum of each consecutive 12-month period.

Condition 11: The pultrusion operations shall process no more than the following quantities of the listed materials or their equivalents:

	lb/hr	tons/yr
Esperox 570P	8.40	25.8
t-Butyl Perbenzoate	2.10	6.5
Lupersol DDM-9	0.56	0.1
Dimethylaniline	0.04	0.01
PM Acetate Blend	80.00	50.0
M-1526 Inhibitor	2.00	1.3

Condition 13: Emissions from the operation and clean-up of the pultrusion machines shall not exceed the limits specified below:

VOC	43.81 lb/hr	81.62 tons/yr

As an existing reinforced plastic composites production facility with no centrifugal casting or continuous lamination/casting operations, 9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to pultrusion operations:

40 CFR 63.5805(a): Emission limitation for pultrusion in Table 3 and work practice standards for pultrusion of large parts in Table 4;

40 CFR 63.5830(b) – (e): Compliance options for existing pultrusion operations; and,

40 CFR 63.5835(a): General requirements for compliance with the emission limitation for pultrusion in Table 3.

There are no add-on control devices at the facility for HAP emissions from pultrusion equipment. Therefore, the emissions capture and control option in 40 CFR 63.5830(a) is not included in the permit.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable to the cut back saw:

9 VAC 5-40-260 C, Standard for Particulate Matter: With a process weight rate of 455 lb/hr, emissions of particulate matter from the cut back saw shall not exceed 1.52 lb/hr; and,

9 VAC 5-50-80, Standard for Visible Emissions: Visible emissions shall not exceed 20 percent opacity, except for 6-minute period in any one hour of not more than 30 percent opacity.

Monitoring

Use of fabric or paper filters to control particulate emissions from the pultrusion machines will be monitored by visible emission observations and maintaining records of air pollution control device operating procedures and maintenance based on the manufacturer's recommendations, at minimum. Visible emission observation requirements and maintenance/operating procedure requirements are in the Facility-Wide Requirements section of the Statement of Basis and Title V permit.

The hourly emission limit established for VOC in Condition 13 of the minor NSR permit is based on total maximum capacity of the pultrusion machines and resin mix component throughput limits in Condition 11, of the minor NSR permit. If the pultrusion machines are operated at capacity, or below, and resin mix component throughput limits are not violated, there should not be a violation of the hourly VOC emission limit. Calculations demonstrating compliance have been included in Attachment A. Recordkeeping demonstrating compliance with the throughput limits can be used to demonstrate compliance with the VOC hourly emission limit; therefore, throughput limits satisfy the periodic monitoring requirement.

The annual emission limit established for VOC in Condition 13 of the minor NSR permit is based on resin mix and resin mix component throughput limits contained in Conditions 9, 10, and 11, of the minor NSR permit. Resin mix and mix component throughputs are the factors that determine the VOC emission rates. Therefore, as long as the annual throughput limits are not violated, the VOC annual emission limit should not be violated. Calculations demonstrating compliance have been included in Attachment A. Recordkeeping demonstrating compliance with the throughput limits can be used to demonstrate compliance with the VOC annual emission limit; therefore, throughput limits satisfy the periodic monitoring requirement.

VOC emissions from the pultrusion operation will be calculated using DEQ approved emission factors supplied by the permittee as shown below:

Pultrusion	0.0104 pounds VOC/pound of styrene resin 0.00243 pounds VOC/pound of phenolic resin

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to pultrusion operations:

40 CFR 63.5895(c) and (e): Monitoring and data collection requirements for resin use and wet area enclosures; and,

40 CFR 63.5900(a)(2) and (a)(4): Continuous compliance demonstration requirements.

The maximum allowable emission rate for particulate matter from the cut back saw calculated in accordance with 9 VAC 5-40-260 C is based on maximum capacity (process weight rate) of the saw. If the saw is operated at capacity, or below, there should be no violation of the maximum allowable emission rate. Calculations demonstrating compliance have been included in Attachment A. Recordkeeping of material throughput to the saw can be used to demonstrate compliance with the applicable maximum allowable emission rate for particulate matter; therefore, recordkeeping satisfies the periodic monitoring requirement.

Visible emissions and proper operation of the cut back saw and associated fabric filter control device will be monitored by visible emission observations and maintaining records of air pollution control device operating procedures and maintenance based on the manufacturer's recommendations, at minimum. Visible emission observation requirements and maintenance/operating procedure requirements are in the Facility-Wide Requirements section of the Statement of Basis and Title V permit.

Since potential pre-control emissions of PM-10 (2.06 tons/yr) from the cut back saw are below the Title V major source level (100 tons/yr), the provisions of 40 CFR Part 64 – Compliance Assurance Monitoring do not apply. Potential pre-control emissions calculations are included in Attachment A.

Recordkeeping

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to pultrusion operations:

40 CFR 63.5895(c) and (e): Recordkeeping requirements for resin use and wet area enclosures; and,

40 CFR 63.5915 and 5920: Recordkeeping requirements.

The permit includes the recordkeeping requirements from Condition 15 of the minor NSR permit, 40 CFR Part 70, and 40 CFR Part 63, Subpart WWWW. These records include:

Annual consumption of styrene resin mix in the pultrusion machines, calculated monthly as the sum of each consecutive 12-month period;

Annual consumption of phenolic resin mix in the pultrusion machines, calculated monthly as the sum of each consecutive 12-month period;

Monthly and annual hours of operation of the pultrusion machines. Annual hours of operation will be calculated monthly as the sum of each consecutive 12-month period;

Monthly and annual consumption of resin mix materials in the pultrusion machines including additives, catalysts and solvents. Annual amounts will be calculated monthly as the sum of each consecutive 12-month period;

Hourly consumption of resin mix materials in the pultrusion machines. Hourly amounts will be calculated by dividing monthly consumption of resin mix materials in the pultrusion machines by monthly hours of operation of the pultrusion machines;

Emission factors used to calculate emissions from the pultrusion equipment;

All data, assumptions, and calculations used to determine organic HAP emissions factors for pultrusion equipment;

All times that doors or covers of wet area enclosures are open and there is resin present in the resin bath;

A certified statement of compliance with work practice requirements;

Organic HAP content of each resin;

Monthly hours of operation of the cut back radial arm saw;

Monthly throughput of materials, in pounds or tons, to the cut back radial arm saw; and,

Hourly throughput of materials to the cut back saw. Hourly amounts will be calculated by dividing monthly throughput of materials to the cut back saw by monthly hours of operation of the cut back saw.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent 5 years.

Testing

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit, if necessary, to determine compliance with an emission limit or standard.

EMISSION UNIT APPLICABLE REQUIREMENTS – Clay and Resin Mixing and Storage Equipment MR-1, CAS-1, DA-1, and T-WC-1 through T-WC-4

Limitations

The following requirements are from the minor NSR permit issued on March 24, 2010:

> Condition 2: Particulate emissions from pneumatic loading of the clay aggregate storage silo shall be controlled by fabric filtration or equivalent on the silo vents.
>
> Condition 3: Particulate emissions from the Dynamic Air pneumatic conveying system shall be controlled by fabric filtration, or equivalent.
>
> Condition 8: The consumption of clay aggregate material shall not exceed 2,700 tons per year.

As an existing reinforced plastic composites production facility with no centrifugal casting or continuous lamination/casting operations, 9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to resin mixing and storage operations:

> 40 CFR 63.5805(a) and 5835(a): Applicable work practice standards in Table 4 of the subpart and general compliance requirements.

Monitoring and Recordkeeping

Use of fabric filters to control particulate emissions from the clay aggregate storage and conveying systems will be monitored by visible emission observations and maintaining records of air pollution control device operating procedures and maintenance based on the manufacturer's recommendations, at minimum. Visible emission observation requirements and maintenance/operating procedure requirements are in the Facility-Wide Requirements section of the Statement of Basis and Title V permit.

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to resin mixing and storage operations:

> 40 CFR 63.5900(a)(4): Continuous compliance demonstration requirements for work practice standards for existing mixing, storage and cleaning operations.

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to resin mixing and storage operations:

40 CFR 63.5915 and 5920: Recordkeeping requirements.

The permit includes the recordkeeping requirements in Condition 15 of the NSR permit and applicable recordkeeping requirements of Part 70, and 40 CFR Part 63, Subpart WWWW. These records include:

A certified statement of compliance with the work practice requirements; and,

Annual consumption of clay aggregate material, calculated monthly as the sum of each consecutive 12-month period.

Testing

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit, if necessary, to determine compliance with an emission limit or standard.

EMISSION UNIT APPLICABLE REQUIREMENTS – Manual Surface Coating Operation PT-1

Limitations

The following requirements are from the minor NSR permit issued on March 24, 2010:

Condition 7: Total combined throughput of TNEMEC Company, Inc. Endura-Shield Slate Gray, Endura-Shield Converter and Accelerator, and Carboline Company Carbothane 133 FC Part A and Urethane Converter 8800, or equivalent coatings shall not exceed 4,975 gallons per year, calculated monthly as the sum of each consecutive 12-month period.

Condition 12: Emissions from the manual surface coating operation shall not exceed the limits specified below:

VOC	3.82 lb/hr	16.73 tons/yr

Monitoring and Recordkeeping

The hourly emission limit established for VOC in Condition 12 of the minor NSR permit is

based on total maximum capacity of the manual coating operation and use of approved coatings listed in Condition 7, of the minor NSR permit. If the coating operation is operated at capacity, or below, and approved coatings are used, there should not be a violation of the hourly VOC emission limit. Calculations demonstrating compliance have been included in Attachment A. Recordkeeping demonstrating use of approved coatings can be used to demonstrate compliance with the VOC hourly emission limit; therefore, operational limits satisfy the periodic monitoring requirement.

The annual emission limit established for VOC in Condition 12 of the minor NSR permit is based on the use of approved coatings and the coating throughput limit contained in Condition 7, of the minor NSR permit. Use of approved coatings and coating throughputs are the factors that determine the VOC emission rates. Therefore, as long as the annual throughput limit is not violated, the VOC annual emission limit should not be violated. Calculations demonstrating compliance have been included in Attachment A. Recordkeeping demonstrating use of approved coatings and compliance with the throughput limit can be used to demonstrate compliance with the VOC annual emission limit; therefore, operational limits satisfy the periodic monitoring requirement.

The permit includes the recordkeeping requirements in Condition 15 of the NSR permit, which includes the annual throughput of coatings to the manual surface coating operation, calculated monthly as the sum of each consecutive 12-month period.

Testing

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit, if necessary, to determine compliance with an emission limit or standard.

EMISSION UNIT APPLICABLE REQUIREMENTS - Facility-Wide Requirements

Limitations

As an existing reinforced plastic composites production facility with no centrifugal casting or continuous lamination/casting operations, 9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to cleaning operations for reinforced plastic composites production equipment subject to Subpart WWWW:

40 CFR 63.5805(a): Work practice standards for cleaning in Table 4 of the subpart; and,

40 CFR 63.5835(a): General requirements for compliance with the work practice standard for cleaning in Table 4 of the subpart.

The following requirements are from the minor NSR permit issued on March 24, 2010:

> Condition 5: At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
>
> Condition 14: Visible emissions from each fabric filter and/or dust collector exhaust shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
> *Note: This condition does not apply to the cut back saw fabric filter exhaust.*

Monitoring

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to cleaning operations for reinforced plastic composites production equipment subject to Subpart WWWW:

> 40 CFR 63.5900(a)(4): Compliance with the work practice standards in Table 4 is demonstrated by performing the work practice required for the operation.

Visible emission limitations will be monitored by visible emission observations. Each fabric filter and dust collector exhaust to the atmosphere will be visually observed for a brief period of time at least once each day while the unit is in operation to determine if the unit has visible emissions (does not include condensed water vapor/steam). If visible emissions are observed during these daily observations, then visible emissions evaluations in accordance with 40 CFR 60, Appendix A, Method 9 will be conducted on the unit with visible emissions. A Method 9 evaluation will not be required if the visible emission condition is corrected as expeditiously as practicable such that no visible emissions are present and, the visible emissions condition, cause and corrective measures taken are recorded. A record of each visible emissions observation will be maintained. The record will include, at a minimum, the date, time, name of the emission unit, the applicable emissions requirement, the results of the observation, and the name of the observer.

The following requirements are from the minor NSR permit issued on March 24, 2010:

> Condition 18: The permittee shall develop maintenance schedules, maintain spare parts, have available written operating procedures, and train equipment operators in order to minimize the duration and frequency of excess emissions, with respect to air pollution

control equipment, monitoring devices, and process equipment which affect such emissions.

Recordkeeping

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to reinforced plastic composites production equipment subject to Subpart WWWW:

40 CFR 63.5915(d) and 5920: Recordkeeping requirements.

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

Visible emissions observations and evaluations;

Air pollution control device operator training, operating procedures and maintenance based on the manufacturer's recommendations, at minimum;

A copy of each notification and report submitted to comply with the permit; and,

A certified statement of compliance with the work practice requirements.

Testing

The following requirement is from the minor NSR permit issued on March 24, 2010:

Condition 6: The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriated methods. Test ports shall be provided when requested at the appropriate locations.

The permit does not require specific source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

9 VAC 5-60-100, Subpart WWWW of Virginia air pollution regulations and the following provisions of 40 CFR Part 63, Subpart WWWW-National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, apply to reinforced plastic composites production equipment subject to Subpart WWWW:

40 CFR 63.5900(b), 5905 and 5910: Notification and reporting requirements.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 3-2001."

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on General Condition F.

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Code section has specific requirements only enforceable by the State:

9 VAC 5-50-310, Standards of Performance for Odorous Emissions – Limits discharge into the atmosphere from any affected facility any odorous emissions in excess of that resultant from using best available control technology.

FUTURE APPLICABLE REQUIREMENTS

Strongwell Corporation – Highlands Division did not identify any future applicable requirements in their application, and DEQ is unaware of any future requirements that may apply during the life of the Title V permit. Therefore, no future applicable requirements have been included in the permit.

INAPPLICABLE REQUIREMENTS

New Source Performance Standard (NSPS) Requirements for Polymeric Coating of Supporting Substrates in 40 CFR Part 60, Subpart VVV, and 9 VAC 5-50-410, are not applicable based on the following differences between the fiberglass reinforced plastic pultrusion process and the processes described in the Background Information Document (BID) for NSPS Subpart VVV:

- all coated materials discussed in the BID are polymers; the permittee's process utilizes monomeric styrene;

- the pultrusion and casting processes do not utilize solvents; the styrene monomer is liquid with physical properties sufficient for processing;

- there are no flashoff, drying or curing ovens associated with the process at the facility; they are unnecessary due to the fact that no solvents are used that need to be dried;

- the finished product is a structural component and completely rigid, not capable of being rewound and is totally inflexible as it comes off the production line; and,

- the fiberglass-reinforcing matrix is not a substrate to be coated or merely impregnated, it is a critical, supporting structure.

Since coatings approved for use in the manual surface coating operation contain no more than 1 percent by mass of any individual hazardous air pollutant (HAP), the coatings are considered non-HAP coatings as defined in 40 CFR 63.4581 of Subpart PPPP – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products. Therefore, in accordance with 40 CFR 63.4481(c)(1), Subpart PPPP does not apply to the manual

coating operation.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
HC-1	York heating/cooling system, natural gas-fired	5-80-720 C.2.a.	-----	0.163 million Btu/HR heat input
HC-2 and HC-3	York heating/cooling system, natural gas-fired	5-80-720 C.2.a.	-----	0.10 million Btu/HR heat input, each
SH-1 through SH-33	Radiant space heaters, natural gas-fired	5-80-720 A.6.	-----	0.075 million Btu/HR heat input, each
AH-1	Natural gas-fired space heater	5-80-720 C.2.a.	-----	1 million Btu/hr heat input
AH-2	Natural gas-fired space heater	5-80-720 C.2.a.	-----	1.75 million Btu/hr heat input

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was published in the Washington County News, Abingdon, Virginia on May 19, 2010. A copy of the draft permit, Statement of Basis and public notice were sent to the EPA by e-mail on May 13, 2010. A copy of the public notice was sent to the affected states, including Kentucky, North Carolina, Tennessee, and West Virginia in a letter dated May 14, 2010. A copy of the public notice was sent to all persons on the Title V mailing list no later than the date of publication.

Public comments were accepted from May 20, 2010, through June 18, 2010. No comments were received from the public or the affected states regarding the draft permit. EPA sent comments by e-mail on June 10, and June 28, 2010. Responses to EPA's comments can be found in the Response to Comments Document.

In accordance with 9 VAC 5-80-290 A.1, a copy of the proposed permit was submitted to the EPA by e-mail on June 29, 2010. The 45-day EPA review period indicated by 9 VAC 5-80-290 C.1 ended on August 13, 2010, with no comments received.

Attachment A
Strongwell Corporation – Highlands Division
Permit No. SWRO11207

Pultrusion Operations

Styrene Resin:

2,550 lb resin/hr × 0.0104 lb VOC/ lb resin × (1 – 60%)	=	10.61 lb/hr
7,500 tons resin/yr × 0.0104 ton VOC/ton resin × (1 – 60%)	=	31.20 tons/yr

Phenolic Resin

312 lb/hr × 0.00243 lb VOC/lb resin	=	0.76 lb/hr
600 tons/yr × 0.00243 ton VOC/ton resin	=	1.46 tons/yr

PM Acetate Blend (100% VOC, 25% emitted, usage rates: 80 lb/hr, 50 tons/yr)

80 lb/hr × 0.25	=	20.0 lb/hr
50 tons/yr × 0.25	=	12.5 tons/yr

M1526 Inhibitor (3% VOC, usage rates: 2.0 lb/hr, 1.3 tons/yr)

2.0 lb/hr × 0.03	=	0.06 lb/hr
1.3 tons/yr × 0.03	=	0.04 ton/yr

Esperox 570P (1% VOC, usage rates: 8.4 lb/hr, 25.8 tons/yr)
This organic peroxide is consumed in the process, undergoing chemical change.

8.4 lb/hr × 0.01	=	0.08 lb/hr
25.8 tons/yr × 0.01	=	0.26 ton/yr

t-Butyl Perbenzoate (100% VOC, 2% emitted, usage rates: 2.1 lb/hr, 6.5 tons/yr)
This is an organic peroxide, which initiates polymerization of the resin. Although the material is potentially a VOC, it decomposes at relatively low temperatures and is largely consumed in the polymerization reaction. Estimate that 2% is emitted.

2.1 lb/hr × 0.02	=	0.04 lb/hr
6.5 tons/yr × 0.02	=	0.13 ton/yr

Lupersol DDM-9 (54% VOC, usage rates: 0.56 lb/hr, 0.1 ton/yr)
The organic peroxides are changed chemically and not emitted as VOC. Only the solvent portion is emitted.

0.56 lb/hr × 0.54	=	0.3 lb/hr
0.1 ton/yr × 0.54	=	0.05 ton/yr

Dimethylaniline (100% VOC, usage rates: 0.04 lb/hr, 0.01 ton/yr)

0.04 lb/hr × 1	=	0.04 lb/hr
0.01 ton/yr × 1	=	0.01 ton/yr

Total expected VOC emissions from the operation and clean-up of pultrusion equipment are: 31.89 lb/hr, 45.65 tons/yr.

Cut Back Radial Arm Saw

The saw is subject to the standard for particulate matter in Virginia air quality regulation 9 VAC 5-40, Part II, Article 4 – Emission Standards for General Process Operations. Information in the application indicates the maximum capacity of the cut back saw is 455 lb/hr. Therefore, in accordance with 9 VAC 5-40-260 C, the maximum allowable emission rate for particulate matter from the saw is 1.52 lb/hr.

Information submitted by the company indicates 2.08 pounds of particulate matter are generated for every ton of product throughput to the cut back saw.

Predicted emissions are calculated using a control efficiency of 99.5% for the fabric filter control device associated with the saw.

Predicted PM Emissions

2.08 lb/ton × 455 lb/hr × 0.0005 ton/lb × (1 – 0.995)	=	0.0024 lb/hr
0.0024 lb/hr × 8,760 hr/yr × 0.0005 ton/lb	=	0.011 ton/yr

Since predicted emissions of particulate matter (0.0024 lb/hr) are less than the maximum allowable emission rate for particulate matter (1.52 lb/hr), compliance with the applicable emission standard can be predicted.

Potential Pre-Control PM-10 Emissions

PM-10 is considered equal to PM for these calculations. Potential pre-control emissions of PM-10 are calculated assuming the saw operates uncontrolled at maximum capacity 8,760 hr/yr.

2.08 lb/ton × 455 lb/hr × 0.0005ton/lb	=	0.47 lb/hr
0.47 lb/hr × 8,760 hr/yr × 0.0005 ton/lb	=	2.06 tons/yr

Since potential pre-control emissions of PM-10 (2.06 tons/yr) from the saw are below the Title V major source level (100 tons/yr), the provisions of 40 CFR Part 64 – Compliance Assurance Monitoring do not apply.

Manual Surface Coating Operation

Predicted hourly emissions of VOC are calculated based on the worst case coating throughput to the operation at maximum capacity. Predicted annual emissions of VOC are calculated based on the maximum expected throughput of 4,975 gallons per year of the worst case coating. A review of material safety data sheets for the approved coatings indicates the worst case coating is the TNEMEC Company, Inc. Accelerator Urethane with a VOC content of 6.725 pounds per gallon. Predicted emissions of VOC are calculated as follows:

Attachment A
Strongwell Corporation – Highlands Division
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VOC

0.568 gal/hr × 6.725 lb/gal	=	3.82 lb/hr
4,975 gal/yr × 6.725 lb/gal × 0.0005 ton/lb	=	16.73 tons/yr